PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-095840
(43)Date of publication of application : 10.04.2001

(51)Int.Cl. A61F 13/494
A61F 13/15
A61F 5/44

(21)Application number : 11-281607
(22)Date of filing : 01.10.1999

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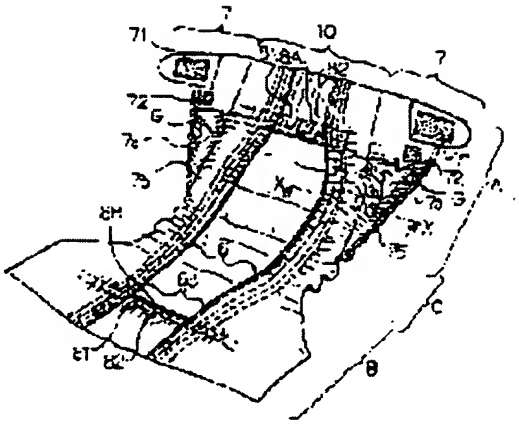
(54) ABSORBENT ARTICLE

(57)Abstract:
PROBLEM TO BE SOLVED: To provide an absorbent article such as a disposable diaper not excessively tightening the periphery of a leg, excellent in fitness feeling, for preventing stuffiness from being easily generated, and having the excellent appearance.
SOLUTION: This absorbent article is provided with a substantially longitudinal main body 10 having a liquid-permeable front surface sheet 2, a liquid-impermeable leakage preventing sheet and a liquid holding absorbing body 4, and a pair of side flap parts 7, 7 formed on both right and left sides of the main body 10 on the back side part A. A leg part elastic member for forming a leg gather is not arranged on the main body 10, flap part elastic members 75 are fixed to outer edge parts 7a of the side flap parts 7 in the extended state, and recessed parts G are formed inside the flap part elastic members 75 in the side flap parts 7.



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[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

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* NOTICES *

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CLAIMS

[Claim(s)]
[Claim 1] In the absorptivity goods possessing the side flap section of the pair formed in the right-and-left both sides of this body [in / substantially / a longwise body and the back] equipped with the surface sheet of liquid permeability, the watertight sheet of liquid impermeability, and the absorber of liquid holdout The leg section elastic member for leg gathers formation is not allotted to said body, but a flap section elastic member is fixed to the rim section of said side flap section in the state of expanding. By contraction of this flap section elastic member Absorptivity goods with which the crevice is formed inside this flap section elastic member in this side flap section.
[Claim 2] The rim section to which said flap section elastic member of said side flap section was fixed is absorptivity goods according to claim 1 the elongation percentage of whose is 5 - 150%.
[Claim 3] Absorptivity goods according to claim 1 or 2 with which the web material of the pair which has an elastic member is allotted to the both-sides section of the longitudinal direction of said body, and the solid guard of a Uichi Hidari pair is formed in it.
[Claim 4] Said side flap section is absorptivity goods given in any of claims 1-3 which are making the shape of an abbreviation triangle they are.
[Claim 5] Said flap section elastic members are absorptivity goods given in any of claims 1-4 they are with which the end section is located in the bottom half section of the leg opening edge formed at the time of wearing.

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DETAILED DESCRIPTION

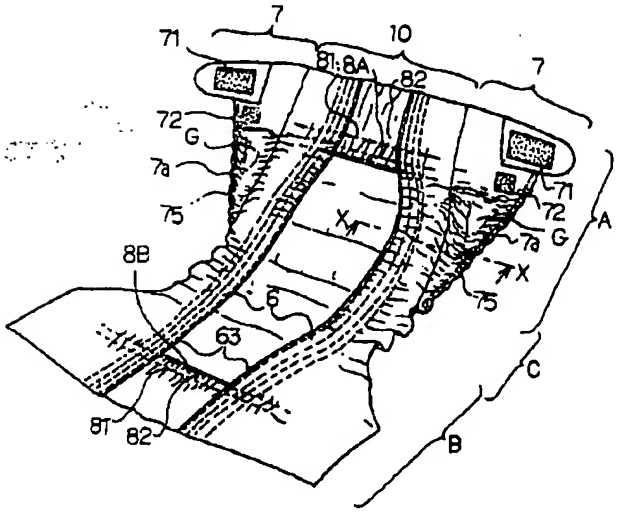
[Detailed Description of the Invention]
[0001]
[Field of the Invention] The circumference of a foot is not bound tight too much, and it excels in fit nature, and is hard to produce MURE, and this invention relates to absorptivity goods, such as a disposable diaper excellent in the appearance.
[0002]
[Description of the Prior Art] Conventionally, the body equipped with the surface sheet of liquid permeability, the watertight sheet of liquid impermeability, and the absorber of liquid holdout and the side flap section of the pair formed in the back are provided, and the disposable diaper used for the external surface of an antinode flank for this side flap section, attaching firmly through a firm attachment means is known widely. In this disposable diaper, a leg section elastic member is allotted to the both-sides section of said body, and the leakage from the circumference of a foot is usually prevented by leg gathers.
[0003] However, since the leg section elastic member is continued and allotted to the whole bottom half section of the leg opening edge formed at the time of wearing, bolting of the circumference of a foot may become strong too much, and a wearing person may usually appeal against a pain. Moreover, since a leg opening edge interviews to a wearer's skin strongly, it is easy to produce MURE in the circumference of a foot, and may become causes, such as a rash. Furthermore, by contraction of the leg section elastic member continued and allotted to the whole bottom half section of a leg opening edge, the diaper itself tends to slip down caudad and there is a case with disadvantage fit nature where it divides.
[0004] Therefore, the circumference of a foot is not bound tight too much, and it excels in fit nature, and is hard to produce MURE, and the purpose of this invention is to offer absorptivity goods, such as a disposable diaper excellent in the appearance.
[0005]
[Means for Solving the Problem] In the absorptivity goods possessing the side flap section of the pair formed in the right-and-left both sides of this body [in / substantially / a longwise body and the back] which this invention equipped with the surface sheet of liquid permeability, the watertight sheet of liquid impermeability, and the absorber of liquid holdout The leg section elastic member for leg gathers formation is not allotted to said body, but a flap section elastic member is fixed to the rim section of said side flap section in the state of expanding. By contraction of this flap section elastic member The above-mentioned purpose is attained by offering the absorptivity goods with which the crevice is formed inside this flap section elastic member in this side flap section.
[0006]
[Embodiment of the Invention] Hereafter, this invention is explained based on the desirable 1 operation gestalt. The disposable diaper 1 as absorptivity goods of this operation gestalt is equipped with the body 10 equipped with the surface sheet 2 of liquid permeability, the watertight sheet 3 of liquid impermeability, and the absorber 4 of liquid holdout which has a longwise gestalt substantially. The surface sheet 2 and a watertight sheet 3 have a respectively larger dimension than an absorber 4, and pinching immobilization of the absorber 4 is carried out between both [these] the sheets 2 and 3. The watertight sheet 3 has extended so that the edges-on-both-sides section may be located in the method of the outside of right and left rather than edges-on-both-sides 4a (only one side is illustrated) of an absorber 4, and the extension part forms the leg sections 11 and 11 of the pair which meets the both-sides section of a body 10 at the longitudinal direction of the disposable diaper 1. Moreover, the outer layer sheet 5 made of a nonwoven fabric is arranged, this outer layer sheet 5 has extended in the external surface of a watertight sheet 3 so that the edges-on-both-sides section may be located in the method of the outside of right and left rather than edges-on-both-sides 4a (only one side is illustrated) of an absorber 4, and the extension part forms the leg sections 11 and 11 in it with the watertight sheet 3.
[0007] The body 10 is making the longwise abbreviation rectangle-like configuration in the condition (henceforth an expansion condition) of having opened the disposable diaper 1 to the plane, and the solid guards 6 and 6 of a right-and-left pair are formed in the both-sides section of the longitudinal direction of a body 10. Each solid guard 6 allots the web material 62 which has an elastic member 61, and is formed. each solid guard's 6 free end 63 is located in the central site of the disposable diaper 1 rather than the end face 64, [above an absorber 4], this end face 64 carries out adhesion immobilization, and the web material 62 is formed in the surface sheet 2. As for each web material 62. in the free end 63, the edge of the opposite side is stuck on a watertight sheet 3 by having extended so that it may be located in the method of outside [a / of an absorber 4 / side edge 4], and the extension part forms the leg sections 11 and 11 with the watertight sheet 3 and the outer layer sheet 5.
[0008] Moreover, the web materials 82 and 82 which have an elastic member 81, respectively are allotted to the both ends of the longitudinal direction of the disposable diaper 1, and backside solid guard 8A and venter solid guard 8B are formed in them, respectively. In addition, the leg section elastic member for leg gathers formation is not allotted to a body 10. Here, a leg section elastic member says the elastic member allotted so that the end section may be located in the back A allotted to a wearer's backside and it may be located in the antinode flank B matched for a venter with the other end, the whole bottom half section [of the leg opening edge 13] U is covered, and leg gathers are usually formed.
[0009] And this disposable diaper 1 has the backside side flap sections 7 and 7 of the pair as said side flap section in the right-and-left both-sides section of Back A. In the expansion condition of a diaper, rather than the edges-on-both-sides section in the part from which the width of face of a diaper serves as min, the backside side flap section 7 is a part of back located in the method of the outside of right and left, and is making the longwise abbreviation triangle-like configuration.

[0010] In the web material 73 for flap section formation which has elasticity, it fixes and each backside side flap section 7 is formed in flank 10a of a body 10 so that it may project in the method of outside from this flank 10a. And the subfirm attachment means 72 is formed in flexible section 7A which consists only of a web material 73, and the main firm attachment means 72 is formed in non-contracting [expand and] section 7B which stuck other web materials 74 and 74 of non-elasticity on this web material 73, and was formed. In addition, both the firm attachment means 71 and 72 of the main ** consist of a male member of the mechanical fastener with which it comes to implant much projections for engagement in one side, it is joined to the backside side flap section 7 by the proper junction approaches, such as joining and adhesion, and are formed in it, and are made as [engage /, respectively / with the attached firmly firmly section 9 of antinode flank B external surface / free / attachment and detachment]. As a male member of a mechanical fastener, "the piece of Velcro (trademark) etc." by Kuraray Co., Ltd. etc. can be used, for example.
[0011] It **, the flap section elastic member 75 is being fixed to rim section 7a of the right-and-left lateral part of the disposable diaper 1 in the backside side flap section 7 in the state of expanding, and Crevice G is formed of contraction of this flap section elastic member 75 inside this flap section elastic member 75 in this backside side flap section 7.
[0012] The flap section elastic member 75 is located in the bottom half section U the end section 75a of whose is a part in the lower half of the leg opening edge 13 formed at the time of wearing, and it is allotted so that other end 75b may be located near the non-contracting [expand and] section 7B.
[0013] the viewpoint which obtains fit nature with rim section 7a good to the circumference of the viewpoint which makes Crevice G form in the backside side flap section 7 good, and a foot in the backside side flap section 7 to which the flap section elastic member 75 was fixed to the elongation percentage is 10 - 100% -- it is desirable and it is more desirable that it is 20 - 80%.
[0014] Here, elongation percentage is measured as follows. Rim section 7a is cut so that the whole contraction section (contracted part) of the flap section elastic member 75 may be contained, two points which are on this contraction section of the flap section elastic member 75, and are on a line parallel to the contraction direction are set to arbitration, and the minimum distance for the two points is set to A. From the contraction condition, the flap section elastic member 75 is lengthened and distance for said two points when a web material 73 returns to the original die length is set to B. It asks for elongation percentage using a degree type.
The time of returning to elongation percentage (%) ={(B-A) /A} x100, in addition the original die length of a web material 73 means the condition that the shirring of the web material 73 by the flap section elastic member 75, a deflection, distortion, etc. disappeared.
[0015] The crevice G of each backside side flap section 7 is formed so that a concave may be made to the skin contact side side of the disposable diaper 1 and it may make convex to a nothing non-skin contact side side, and each crevice G is formed in the pars intermedia between rim section 7a in each backside side flap section 7, and common-law marriage section 7b by the side of the center line P of the longitudinal direction of a diaper 1 so that the longitudinal direction of this backside side flap section 7 may be covered. Moreover, depth d (refer to drawing 3) increases as it goes to the waist opening edge 12 of Back B, and as for the cross-section configuration of the direction which intersects perpendicularly with the longitudinal direction, each crevice G in a natural condition is making the approximate circle arc, as shown in drawing 2 .
[0016] Moreover, the die length of each flap section elastic member 75 has especially the desirable thing that a certain thing is desirable 3cm or more in the direction of a backside with a radix point, and is allot to the bottom half section U of viewpoints, such as improvement in the fit nature of the circumference of a guide peg, and good formation of Crevice G, to the leg opening edge 13 at the overall length between the lower limit sections of non-contracting [expand and] section 7B from the middle point of the bottom half section U. In addition, common-law marriage section 7b of each backside side flap section 7 is abbreviation parallel in Chuo Line P of the longitudinal direction of a diaper in the expansion condition of a diaper 1, and said solid guard 6 is allotted along with this common-law marriage section 7b near this common-law marriage section 7b. By existence of this solid guard 6, the crevice G formed in each backside side flap section 7 is more deep, and has become what was more excellent in gestalt stability.
[0017] Next, the formation ingredient of each part material which constitutes the disposable diaper 1 of this operation gestalt is explained. As a formation ingredient of the web materials 62 and 82 the solid guards 6 and 8A and for 8B formation, and elastic members 61 and 81, what is used for absorptivity goods, such as a disposable diaper, can usually be especially used for the surface sheet 2, a watertight sheet 3, an absorber 4, and outer layer sheet 5 list without a limit.
[0018] Moreover, elasticity ingredients, such as what laminated the fibrin material which has elasticity in nonwoven fabrics which can use various kinds of well-known ingredients conventionally, and have elasticity especially, such as textile fabrics, knitted fabric, and a film, a nonwoven fabric made of synthetic resin, an elastomer film, elastomer form, and them as a formation ingredient of the backside side flap section 7 (web material 73), are desirable.
[0019] moreover, as a formation ingredient of the flap section elastic member 75 Various kinds of well-known spring materials can be used. Usually, as the material Synthetic rubber, such as a styrene-butadiene besides natural rubber, a butadiene, an isoprene, and a neoprene, The material of elasticity, such as EVA, elasticity polyolefine, and urethane, can be used widely, and others, band-like [broad] (Taira rubber ****), the shape of a thin film, form material, etc. can be used as the gestalt. [line / like yarn rubber] A kind may be independently used for these ingredients and they may combine two or more kinds. Moreover, the number of the flap section elastic members 75 fixed to rim section 7a of the side flap section 7 may be one, and they may be plural.
[0020] The disposable diaper 1 of this operation gestalt gathers non-contracting [expand and] section 7B, and wearing immobilization is carried out as the section at a wearer. Namely, this disposable diaper 1 can carry out wearing immobilization of this non-contracting [expand and] section 7B easily at a wearing person by fixing to the attached firmly firmly section 9 of antinode flank B external surface through both the firm attachment means 71 and 72 by gathering non-contracting [expand and] section 7B in a hand, and pulling in the direction of antinode flank B.
[0021] and in this disposable diaper 1, since it does not have the leg section elastic member which the conventional disposable diaper has, too much. **** possibility with a bundle is markedly alike, and the circumference of a foot falls. Moreover, Crevice G is formed inside the flap section elastic member 75 in each backside side flap section 7, and since a predetermined gap is formed of this crevice G between a wearer's skins and the insides (skin contact side) of the side flap section 7 at the time of wearing, it is hard to produce MURE, a rash, etc. in the circumference of a foot. Moreover, since the saccate bulge section S is formed in the both-sides section of the wearer at the time of wear as shown in drawing 5 , an appearance becomes what was excellent also in design.
[0022] Moreover, since the flap section elastic member 75 is allotted to the backside side flap section 7, good fit nature is obtained at the circumference of a foot. Moreover, in order to contract the conventional leg gathers in the length-from-the-crotch-to-the-cuff section, a diaper tended to slip down caudad, but in the diaper of this invention, since there are no leg gathers, instead the flap section elastic member

75 has covered the outside ranging from the femoral region to the length-from-the-crotch-to-the-cuff section, a diaper cannot slip down easily caudad and good fit nature can be obtained also in the length-from-the-crotch-to-the-cuff section C.
[0023] As mentioned above, although 1 operation gestalt of this invention was explained, various modification is possible for this invention within limits which are not restricted to the above-mentioned operation gestalt and do not deviate from the meaning of this invention. For example, although the backside side flap sections 7 and 7 in the above-mentioned operation gestalt fix a web material 73 to a body 10 and it is formed, the side flap section in this invention makes the web material 62 and/or the outer layer sheet 5 a part of member which constitutes a body 10, for example, for solid guard formation, extend further to the method of both sides of a body 10, and may be formed.
[0024] Moreover, the number of the crevices G formed in the side flap section may be one, and they may exist by allotting two or more flap section elastic members 75 etc. [two or more] Moreover, it may be an inner direction side that rim section 7a which fixes the flap section is not limited near the outermost marginal 73a, but the flap section elastic member 75 makes a crevice form in the backside side flap section 7 as much as possible. Moreover, end section 75a of a flap section elastic member may be located in the Johan section of the leg opening edge formed at the time of wearing. Moreover, there is especially no limit in the fixed approach of a flap section elastic member, for example, you may also turn up and wrap in a web material 73, and may also put among two or more web materials.
[0025] Moreover, the adhesion section which the number of one, and applied and formed the binder in the sheet front face as a firm attachment means at each side flap section 7 is sufficient as a firm attachment means, and various kinds of well-known things, such as a hook, can be conventionally used especially for it without a limit. Moreover, this invention is also applicable to others and incontinentia putt, a sanitary napkin, etc. for a baby or an adult. [diaper / disposable]
[0026]
[Effect of the Invention] The absorptivity goods of this invention do not bind the circumference of a foot tight too much, are excellent in fit nature, and it is hard to produce MURE and they are excellent in an appearance.

[Translation done.]

Drawing selection Representative drawing



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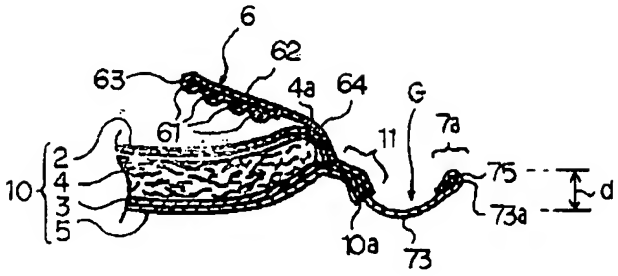

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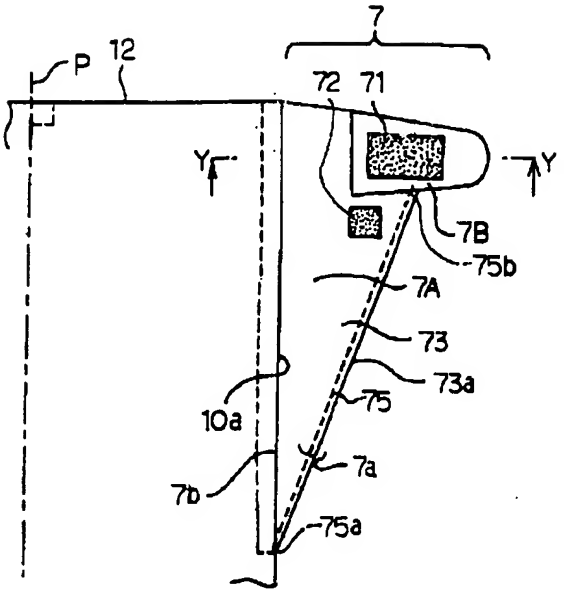

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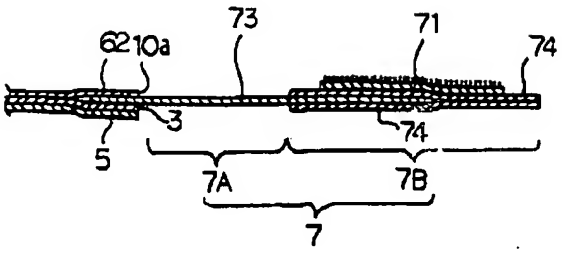

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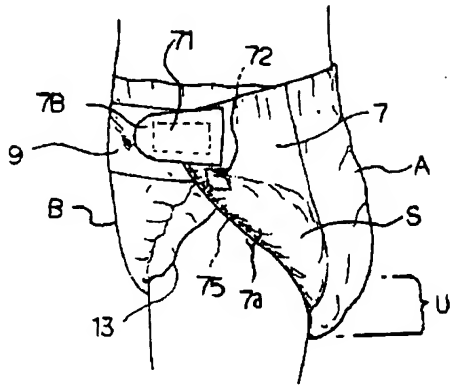

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(11)Publication number : 2000-300605
(43)Date of publication of application : 31.10.2000

(51)Int.Cl. A61F 13/15
A61F 5/44

(21)Application number : 11-116026
(22)Date of filing : 23.04.1999

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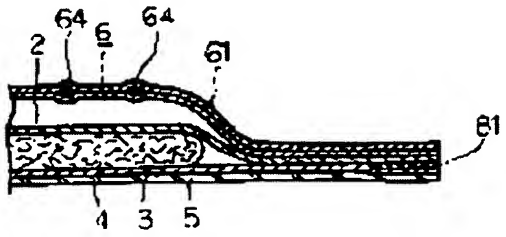
ITO HIDEKAZU
WATANABE HISANORI
KOYAMA TAKAO

(54) ABSORPTIVE ARTICLE

(57)Abstract:
PROBLEM TO BE SOLVED: To provide an absorptive article, such as a throw-away diaper, which is excellent in the erecting property of three-dimensional guards and is excellent in fitness and leakage preventiveness.
SOLUTION: This throw-away diaper has a liquid permeable front surface sheet 2, a liquid-impermeable leakproof sheet 3 and a liquid holdable absorber 4, is substantially longitudinally long and includes a pair of the three-dimensional guards 6 in both right and left side parts of its longitudinal direction. Three-dimensional guard elastic members 64 are disposed at the three-dimensional guards 6 from the three-dimensional guards 6 to the side flap parts on both sides of the ends (abdomen side part and back side part) before and behind the throw-away diaper 1 to the side flap parts.



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CLAIMS

[Claim(s)]
[Claim 1] Absorptivity goods with which either of the edge sides before and behind absorptivity goods is covered from a solid guard at the side flap section, and the solid guard elastic member is allotted to said solid guard in the absorptivity goods with which it had the surface sheet of liquid permeability, the watertight sheet of liquid impermeability, and the absorber of liquid holdout, and it is substantially longwise with goods, the solid guard of a pair was provided on longitudinal direction right-and-left both sides, and the side flap section was formed in the method of the outside of the cross direction of an absorber.
[Claim 2] Said solid guard elastic members are absorptivity goods according to claim 1 arranged so that it may not become said solid guard's free edge, and parallel.
[Claim 3] Said solid guard elastic members are absorptivity goods according to claim 1 or 2 arranged so that it may become perpendicular to said free edge.
[Claim 4] Said solid guard elastic members are absorptivity goods according to claim 1 or 2 arranged so that the front part and a back part may become slanting to said free edge.
[Claim 5] Absorptivity goods given in any of claims 1-4 they are with which the elastic member is allotted to said free edge along with this free edge.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to absorptivity goods, such as a disposable diaper excellent in leakage tightness.
[0002]
[Description of the Prior Art] In absorptivity goods, such as a disposable diaper, since it is an important technical problem to prevent leakage effectively, what formed the solid guard in the right-and-left both sides of an absorber is proposed variously (JP,6-93901,B etc.). The starting solid guard prevents that excrement flows and leakage produces the front face of a surface sheet by forming a pocket between a solid guard and a surface sheet, while fitting a wearer, and stocking excrement in this pocket temporarily, when the free edge stands up towards the upper part. However, he had the case where the pocket of sufficient magnitude to prevent leakage was not formed, either while orthostatic [the] may not fully be demonstrated and the solid guard in the conventional absorptivity goods did not have enough fit nature.
[0003] Therefore, the purpose of this invention is to offer absorptivity goods, such as a disposable diaper which was excellent in orthostatic [of a solid guard] and was excellent in fit nature and leakage tightness.
[0004]
[Means for Solving the Problem] This invention is equipped with the surface sheet of liquid permeability, the watertight sheet of liquid impermeability, and the absorber of liquid holdout. In the absorptivity goods with which it is substantially longwise with goods, the solid guard of a pair was provided in the longitudinal direction right-and-left both-sides section, and the side flap section was formed in the method of the outside of the cross direction of an absorber to said solid guard The above-mentioned purpose is attained by covering the side flap section from a solid guard at both by the side of the edge before and behind absorptivity goods, and offering the absorptivity goods with which the solid guard elastic member is allotted.
[0005]
[Embodiment of the Invention] Hereafter, 1 desirable operation gestalt of the absorptivity goods of this invention is explained. As shown in drawing 1 -5, the disposable diaper 1 as absorptivity goods of the 1st operation gestalt is equipped with the surface sheet 2 of liquid permeability, the watertight sheet 3 of liquid impermeability, and the absorber 4 of liquid holdout, is substantially longwise and possesses the solid guard 6 of a pair on the longitudinal direction right-and-left both sides.
[0006] The disposable diaper 1 of this operation gestalt comes to carry out pinching immobilization by the surface sheet 2 and watertight sheet 3 ** of an absorber 4. Moreover, there is especially no limit in the configuration of an absorber 4, and various configurations, such as the shape of a sandglass and trapezoidal shape, can be taken. Moreover, the surface sheet 2 and a watertight sheet 3 are longer than an absorber 4 respectively, and they are arranged so that it may be located even in the longitudinal direction edge of a diaper. Moreover, a watertight sheet 3 covers the peripheral surface of an absorber 4, and it can wind up, it is arranged so that the side edge of a watertight sheet 3 may become the almost same location as a end face 60, and the width of face of the surface sheet 2 is almost the same as the width of face of an absorber 4 so that the blot leakage from an absorber 4 may be prevented.
[0007] Moreover, the waist section elastic member 81 is allotted to the waist opening 8 in the back B located in the antinode flank A located in a wearer's venter at the time of wear, and a backside, respectively, and waist gathers are formed in it, respectively. And the FASUNINGU tape 11 for disposable diaper firm attachment is formed in the right-and-left edges-on-both-sides section B1 of Back B, and B-2, respectively. The solid guard 6 allots the band-like web material 61 for solid guard formation so that it may extend from the right-and-left edges on both sides of an absorber 4 to the method of outside, and he is formed. The free edge 63 is parallel to the longitudinal direction of the disposable diaper 1. The web material 61 is being fixed to the surface sheet 2 in the flank upper part of an absorber 4, and the end face 60 is formed of this part that fixed. The longitudinal direction edge 61a has fixed the web material 61 by the waist opening 8 side to the surface sheet 2 and the side flap section formation material 5 mentioned later, respectively.
[0008] The side flap section formation material 5 is allotted to the front face of a watertight sheet 3 so that the both-sides section may extend to the method of the outside of the cross direction of a disposable diaper rather than the right-and-left edges on both sides of an absorber 4. And in the method of the outside of the cross direction, the laminating of a web material 61 and the side flap section formation material 5 is carried out from the right-and-left edges on both sides of an absorber 4, and the side flap section 7 of a Uichi Hidari pair which contacts the circumference of a wearer's foot at the time of wear is formed. Thus, by forming the side flap section 7 by the side flap section formation material 5 and the web material 61, it excels in permeability and can consider as the disposable diaper which is not MURE. Moreover, the side flap section formation material 5 has the shape of a sandglass in which the center of a longitudinal direction was narrow, and the configuration of a side edge where it is located in the edge of the side flap section 7 of a web material 61 is made with the shape of the side flap section formation material 5 and isomorphism.
[0009] It **, and in the disposable diaper 1 of this operation gestalt, the side flap section 7 is covered from the solid guard 6, and the solid guard elastic member 64 is allotted to both by the side of the edge before and behind the disposable diaper 1 (the antinode flank A and Back B) by the solid guard 6.
[0010] Furthermore, as shown in drawing 2 -5, a detailed explanation allots the solid guard elastic member 64 so that it may not become parallel to the solid guard's 6 free edge 63. Specifically, it is allotted so that it may become perpendicular to the free edge 63. And as shown in drawing 2 and 4, the solid guard elastic member 64 is pasted up and allotted to the web material 61 through adhesives so that end section 64a is located in the about 63 free edge, a end face 60 may be passed and other end 64b may be located in the pars intermedia of the side

flap section 7. thereby, there is nothing as [locate / in the antinode flank A and the side flap section 7 of Back B / the solid guard elastic member 64] -- ******. And although the web material 61 is fixed on the solid guard 6. in the side flap section 7, pinching immobilization of the solid guard elastic member 64 is carried out by a web material 61 and the side flap formation material 5. Moreover. in this operation gestalt. in the solid guard of a pair, a total of every two solid guard elastic members [eight] 64 is prepared in the longitudinal direction both ends of **. respectively, and each solid guard elastic member 64 is a string-like configuration, respectively.

[0011] The die length L1 (refer to drawing 5) of the solid guard elastic member 64 Although what is necessary is for there to be especially no limit. to pass a end face 60 with the solid guard 6 between the edges of the side flap section 7 from the solid guard's 6 free edge 63 at the side flap section 7. and to just be arranged In order to demonstrate the effectiveness of this invention more. 20 - 100% of die length is desirable to the sum total of the die length of the solid guard's 6 cross direction. and the die length of the cross direction of the side flap section. and 40 - 100% is still more desirable. Moreover, as for the die length L2 (refer to drawing 5) of solid guard elastic member 6 4 in the side flap section 7. it is desirable that it is 20 - 100% of die length to the die length of the cross direction of the side flap section 7. In addition. the die length of the side flap section is the die length of the side flap section of the back and an antinode flank here in the side flap section of the part where the solid guard elastic member is allotted, and this operation gestalt. Moreover. as for the value of L2/L1. it is desirable 0.2 to 0.9 and that it is especially 0.4-0.8. considering as the above-mentioned desirable gestalt -- orthostatic [of a solid guard] -- improving -- in addition -- and the diaper which improved the fit nature of the periphery section and the crotch which have wearing and the release of a diaper can be offered.

[0012] Moreover. the string-like elastic member 65 is allotted to the free edge 63 side along with the free edge 63. Moreover. elastic member 65' between the free edge 63 and a end face 60 mostly allotted to the interstitial segment along with the free edge 63 is allotted. and the elastic member 65, and 65' and the solid guard elastic member 64 intersect the abbreviation right angle on the solid guard 6. Although an elastic member 65 and 65' illustrated and explained what was allotted a total of two [per / every], respectively here, these numbers may be the sum totals, and it may be desirable to be able to carry out to 2-20, and to set each elastic member 65 in this case and spacing of 65' to 0.2-5cm, and you may not be regular intervals between each elastic member.

[0013] Next. the formation ingredient of each part material which constitutes the disposable diaper of this operation gestalt is explained. As a formation ingredient of said surface sheet 2, said watertight sheet 3, said absorber 4. said waist section elastic member 81, and said FASUNINGU tape 11. what is used for a disposable diaper can usually be especially used without a limit.

[0014] The air permeability has desirable 500sec(s) / 100 cc or less, it is desirable that it is the sheet of permeability and it is [as for said web material 61 and said side flap formation material 5 it is more desirable that they are 100sec / 100 cc or less. and] still more desirable that they are 20sec / 100 cc or less. By setting air permeability to 500sec(s) / 100 cc or less, the aeration effectiveness being good, and the interior of a diaper not being steamed at the time of wear, and doing a bad influence to the skin of wearing persons. such as a rash, decreases. Moreover. the water pressure-proof of said web material 61 and said side flap formation material (water repellency) is 3.0 g/cm2. The above is desirable and it is 5.0 g/cm2. The above is still more desirable. It is water pressure-proof 3.0 g/cm2 By considering as the above. excrement oozes, there is little ** and the leakage prevention effectiveness becomes high. Moreover, as for the reinforcement (breaking strength) of the direction of CD of said web material 61 and the side flap formation material 5, it is desirable that they are 1000cN / 50mm or more, and it is still more desirable that they are 1200cN / 50mm or more. By setting reinforcement to 1000cN(s) / 50mm or more. ****(ing) on the part which requires the force for a web material, or the outskirts of it, and reducing the fit nature of a diaper at the time of wearing, decreases. As a formation ingredient of the web material 61 which satisfies such conditions, and the side flap formation material 5, span bond, thermal bond, a span bond-melt BURON (nonwoven fabric SM) span bond-melt BURON-span bond nonwoven fabric (SMS), a span bond-melt BURON-melt BURON-span bond nonwoven fabric (SMMS). a heat roll, Ayr through, melt BURON. a span ball-race nonwoven fabric, etc. are mentioned.

[0015] Moreover. although said web material 61 and the side flap formation material 5 may have elasticity and a liquid penetrable or liquid impermeable elastic sheet, an elastic network, the compound-ized elastic panel material are mentioned as a formation ingredient in that case It is desirable to use the elastic panel material which compound-ized various nonwoven fabrics (elasticity and an inelastic thing are included) or various nonwoven fabrics (elasticity and an inelastic thing are included) with ** (a thermoplastic-elastomer film and network) which has elasticity from a viewpoint of a feeling of wearing. Moreover, when ** of elasticity is used for said web material 61 and the side flap formation material 5, although there is especially no limit about the direction of telescopic motion, what has elasticity perpendicularly to the longitudinal direction of a diaper, the thing which has elasticity in parallel, and the thing which has elasticity in both directions are desirable.

[0016] In addition. air permeability and water pressure-proof are measured as follows.

[Air permeability] It measured according to JIS-P8117. That is, the sheet was cut out in magnitude of 70x70mm. and the time amount taken for 100ml air to penetrate using an air permeability measuring instrument (**** type air permeability measuring instrument) was measured.

[Water pressure-proof] It measured according to JIS-L1092.

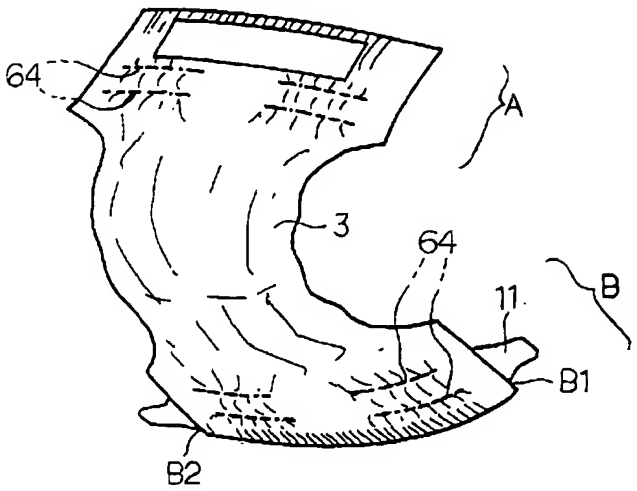
Breaking strength: the test piece with a die length of 150mm was cut down in the direction (CD) which intersects perpendicularly with a width of 25mm. and a flow direction in the flow direction (MD) of an original fabric. About this test piece, using the tensilon tension tester [Cage En Tech company make], the tension test was performed between chucks by speed-of-testing 300 mm/min of 50mm and the direction of CD. and the reinforcement at the time of fracture was measured.

[0017] Moreover. although what is used for a disposable diaper can usually be especially used for said watertight sheet 3 without a limit. it may have elasticity. As a formation ingredient of the liquid impermeable film sheet and nonwoven fabric with which are satisfied of such conditions the polyolefine system (polyethylene --) containing mineral matter, such as a calcium carbonate currently used conventionally It heat-treats on macromolecule resin sheets, such as polypropylene etc. and a polyester system. the sheet; polyolefine system (polyethylene --) obtained by performing secondary elaboration, such as embossing processing, opening processing, or slit processing A polyurethane system. such as metallocene system polyethylene, a polyester system, A polyether system, a polystyrene system, styrene-Butadiene Styrene (SBS). A styrene-isoprene-styrene copolymer (SIS), a styrene-ethylene-butylene-styrene copolymer (SEBS), Thermoplastic-elastomer sheets. such as a styrene-ethylene-propylene-styrene copolymer (SEPS), Thermoplastic elastomer and the span bond using elastic material. thermal bond, SM and SMS, SMMS, a heat roll, Ayr through, melt BURON, a span ball-race nonwoven fabric, etc. are mentioned. Moreover. the thing of 0.5g/ [100cm2 and hr] more than has desirable moisture vapor transmission also in these formation ingredients. and water pressure-proof is 5.0 g/cm2 further. The above thing is desirable and it is 50 g/cm2. The above thing is more desirable. In addition. moisture vapor transmission was measured according to JIS-Z0208.

[0018] Although a well-known elastic member can be conventionally used for said solid guard elastic member 64, 64', and an elastic member 65 without a limit, as for the stress of the solid guard elastic member 64 and 64', being referred to as 10gf-1000gf is desirable, and being referred to as 10gf-1000gf is [the stress of an elastic member 65] desirable. Stress can be measured here with the measuring method which carries out the following.
[Measuring method of the stress of an elastic member] The elastic member was started in die length of 150mm, the tension test was performed by 100mm and tension rate 300 mm/min between chucks using the tensilon tension tester [Cage En Tech company make], and the stress at the time of 100% elongation was measured. In addition, when it changes the stress of elastic member 65', or the solid guard elastic member 64 and 64', a different ingredient may be used and elongation percentage etc. may be changed with the same ingredient.
[the elastic member 65 allotted to the free edge 63 side, and]
[0019] The disposable diaper of this operation gestalt can be used like the disposable diaper of the usual expansion mold. And since the solid guard elastic member 64 is formed like ****, orthostatic [of the solid guard 6] can be good, between the solid guards 6 of a pair can extend moderately, and an absorption side can be made to certainly meet a wearer's urination section in the disposable diaper of this operation gestalt. For this reason, it excels in leakage tightness.
[0020] Allotting a solid guard elastic member to a predetermined configuration, after covering an absorber with a watertight sheet and a surface sheet, the disposable diaper of this operation gestalt carries out allotting side flap section formation material and a web material etc., and is obtained.
[0021] Subsequently, other operation gestalten of this invention are explained. In addition, in the following explanation, especially a different point from the 1st operation gestalt mentioned above is explained. Especially about the point of not explaining, the explanation given in the 1st operation gestalt mentioned above is applied suitably. The disposable diaper 1 of the 2nd operation gestalt shown in drawing 6 is arranged so that the solid guard elastic member 64 may be suitable in the free edge 63 and the direction of slant. In the length-from-the-crotch-to-the-cuff section C of a diaper, although the solid guard elastic member 64 is allotted in parallel with the free edge 63, respectively, specifically It is aslant allotted to the free edge 63 so that it may go to a end face 60 from the free edge 63, as it goes to Back B and the antinode flank A, and further, in the antinode flank A and Back B, a end face 60 is passed, and it is allotted so that it may turn [section / 7 / side flap] to the direction of slant and may be located in it. Thus, the solid guard elastic member 64 may have the part allotted in parallel with the free edge 63. The effectiveness same also as such structure as the 1st above-mentioned operation gestalt is acquired.
[0022] Moreover, the disposable diaper of the 3rd operation gestalt shown in drawing 7 At least one (in this operation gestalt) of the solid guard elastic member 64 Arrangement immobilization is carried out so that all are transmitted to the side edge of an absorber 4 from the solid guard's 6 end face 60, and it is located on absorber 4 rear face, and it may extend to the method of the outside of the cross direction and both of the edges may be further located on the side flap section 5 from the side edge of the opposite side of an absorber 4. While the same effectiveness as the 1st above-mentioned operation gestalt is acquired by considering as such a configuration, fit nature (waist, periphery section) can be raised further.
[0023] in addition, in explanation of an above-mentioned operation gestalt, although the disposable diaper of an expansion mold was illustrated and explained, this invention is restricted to this -- not having -- the disposable diaper of a trousers mold -- it is further applicable to incontinentia putt, a sanitary napkin, etc. It means becoming longwise, when a **** "is substantially longwise" when considering as the disposable diaper of a trousers mold exfoliates a part for the joint of the disposable diaper of a trousers mold and it considers as an expansion condition. Moreover, in an above-mentioned operation gestalt, although that by which gathers are not formed in the side flap section 7 was illustrated and explained, this invention is good also as a gestalt which is not restricted to this but has gathers. Moreover, although the solid guard's 6 end face 60 has illustrated the thing on an absorber 4, you may make it a end face 60 located on the side flap section 7. A solid guard may be prepared in the waist section, the perimeter of the part which contacts the elimination section may be surrounded with a solid guard, and leakage tightness may be raised further. And the solid guard elastic member 64 may allot and form the solid guard who prepares in the waist section like the above-mentioned 1st and the 2nd operation gestalt. The edge in a solid guard elastic member may prepare by turns the part which goes to a end face side, and the part which goes to a free edge side as it goes to a longitudinal direction center section. Moreover, an absorber may be divided crosswise [of a disposable diaper / the longitudinal direction and/or crosswise], or the break may be put in. Specifically the absorber of the shape of a long and slender rectangle is put in order and formed in 3 juxtaposition for an absorber, or a cut is put into a method of both sides, and both-ends side, respectively, the formation condition of opening 12 is stabilized, it shifts, and omission may be prevented.
[0024] Moreover, a part of a solid guard's pars intermedia may be joined to the flank upper part of an absorber, or the side flap section. Moreover, a liquid impermeable film may be laminated in the part between free edges from a solid guard's end face section. In this case, the excrement from a solid guard oozes, ** can be prevented more effectively, and the leakage prevention effectiveness improves. Moreover, it is good also considering the lower part and the flank of an absorber as a wrap configuration using pasteboard, a water-repellent nonwoven fabric, and a water-repellent liquid impermeable film as ** which constitutes an absorber. In this case, it is effective in preventing the excrement once absorbed with a wearing person's body pressure oozing out from an absorber. Moreover, the backside flexible section which allotted two or more backside elastic members to the back located in a wearer's backside, and was formed in it along the cross direction of absorptivity goods may be prepared. In this case, the fit nature in the backside of a diaper can be raised further.
[0025]
[Effect of the Invention] The absorptivity goods of this invention are excellent in orthostatic [of a solid guard], and excellent in fit nature and leakage tightness.

[Translation done.]

Drawing selection Representative drawing



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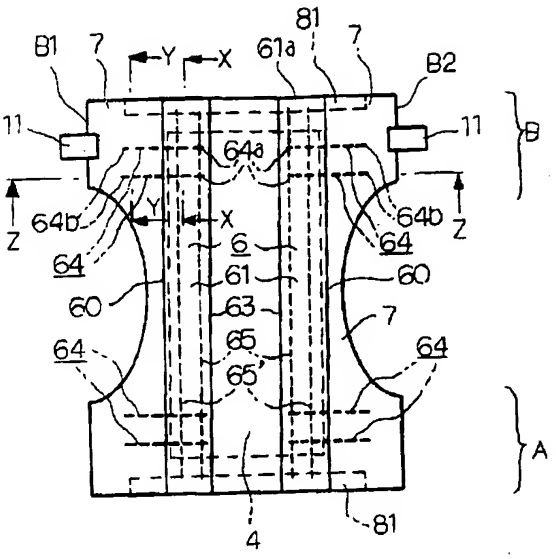

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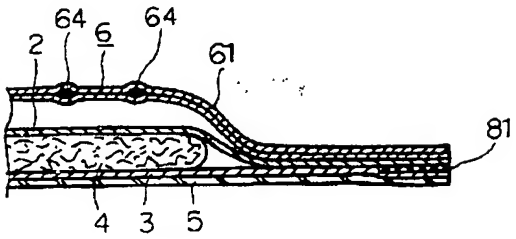

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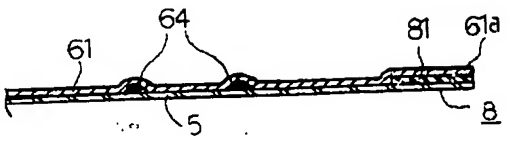
Drawing selection drawing 4



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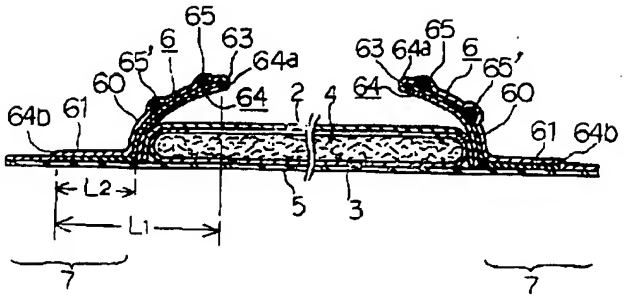
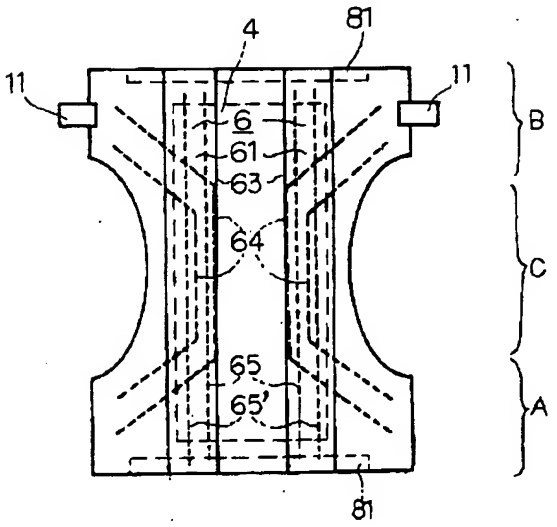
Drawing selection drawing 5



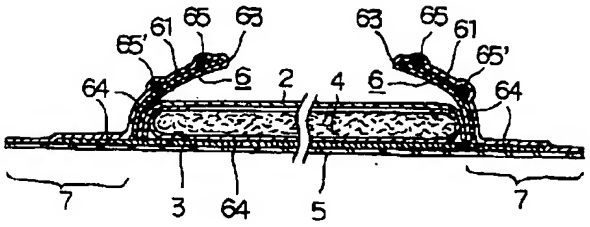
[Translation done.]

Drawing selection drawing 6



[Translation done.]

Drawing selection drawing 7



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